

## CHECKLIST ENVIRONMENTAL ASSESSMENT

**Proposed Action:** Approve Drilling Permit (Form 22)

**Project/Well Name:** Bullion 13-1-1H

**Operator:** Prima Exploration, Inc.

**Location:** NW NW Section 36 T27N R59E

**County:** Roosevelt MT; Field (or Wildcat): Wildcat

**Proposed Project Date:** 05/01/2023

### I. DESCRIPTION OF ACTION

Prima Exploration, Inc. plans to drill a horizontal oil well in the Bakken Formation 26,292' MD, 10,668' TVD. Surface casing to be set at 2,200'.

### II. PROJECT DEVELOPMENT

#### 1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS, OR INDIVIDUALS CONTACTED

Montana Bureau of Mines and Geology, GWIC website (Roosevelt County Wells).

US Fish and Wildlife, Region 6 website

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Roosevelt County

Montana Natural Heritage Program Website (FWP)

Heritage State Rank= S1, S2, S3, T27N R59E

Montana Cadastral Website

Surface Ownership and surface use Section 36 T27N R59E

Montana Department of Natural Resources MEPA Submittal

#### 2. ALTERNATIVES CONSIDERED

No Action Alternative: The proposed well would not be drilled.

Action Alternative: Prima Exploration, Inc. would have permission to drill the well.

### III. IMPACTS ON THE PHYSICAL ENVIRONMENT

#### 3. AIR QUALITY

Long drilling time: 5-7 days drilling time.

Unusually deep drilling (high horsepower rig): Triple derrick drilling rig to drill a single lateral horizontal Bakken Formation 26,292' MD, 10,668' TVD.

Possible H<sub>2</sub>S gas production: Yes, slight H<sub>2</sub>S possible from Mississippian Formations.

In/near Class I air quality area: No Class I air quality area nearby.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211. AQB review.

Comments: No special concerns – using triple derrick rig to drill to 26,292' MD, 10,668' TVD. If there are no gas gathering systems nearby, associated gas can be flared under Board Rule 36.22.1220.

#### **4. WATER QUALITY**

Salt/oil based mud: Yes, will drill with oil based invert drilling fluids for the intermediate casing hole. Horizontal hole will be drilled with saltwater. Surface casing hole will be drilled with freshwater and freshwater mud system, Rule 36.22.1001.

High water table: No high-water table anticipated at this surface location.

Surface drainage leads to live water: No, the closest drainages are unnamed ephemeral drainages about 1/10 of a mile to the north, south, and east of location. Cedar Creek, an intermittent stream is located about 7/10 of a mile to the west.

Water well contamination: None, surface hole will be drilled with freshwater and freshwater drilling fluids to 2,200', steel surface casing will be run and cemented to surface from 2,200' to protect any ground and surface waters. No water wells within a ½ mile radius.

Porous/permeable soils: No, sandy clay soils.

Class I stream drainage: Closest Class I stream drainage is the Missouri River, about 2.1 miles to the southwest from this location.

Groundwater vulnerability area: NA.

Mitigation:

☐ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☒ Closed mud system

☒ Off-site disposal of **solids**/liquids (in approved facility)

☐ Other:

Comments: Steel surface casing will be run to 2,200' and cemented to surface to protect ground water. (Rule 36.22.1001).

#### **5. SOILS/VEGETATION/LAND USE**

Vegetation: Grassland.

Stream crossings: No stream crossings anticipated. Crossing only ephemeral drainages over existing county roads.

High erosion potential: Yes, moderate cut of 17.1' and a large fill of 20.9', required.

Loss of soil productivity: No, location to be restored after drilling, if nonproductive. If productive, unused portion of this drillsite will be reclaimed.

Unusually large wellsite (Describe dimensions): A large well site 458' X 365' to accommodate two wells.

Damage to improvements: Slight surface use appears to for grazing.

Conflict with existing land use/values: Slight.

Mitigation

- ☐ Avoid improvements (topographic tolerance)
- ☐ Exception location requested
- ☒ Stockpile topsoil
- ☐ Stream Crossing Permit (other agency review)
- ☒ Reclaim unused part of wellsite if productive
- ☐ Special construction methods to enhance reclamation
- ☒ Other agency review (DFWP, federal agencies, **DNRC Trust Lands**)

Access Road: Access will be over existing county road, #327. A new access of 11503' will be built into location.

Drilling fluids/solids: A closed loop system will be used for this well. The cuttings will be solidified and hauled to a commercial disposal site and disposed.

## 6. HEALTH HAZARDS/NOISE

Proximity to public facilities/residences: No residences located within a 1/4 a mile from the location.

Possibility of H2S: Yes, slight from Mississippian Formations.

Size of rig/length of drilling time: Triple derrick rig. 5-7 days drilling time.

Mitigation:

☒ Proper BOP equipment (Adequate surface casing cemented to surface, Rule 36.22.1001, with working BOP stack should mitigate any problems, (5,000 psig annular and double ram), Rule 36.22.1014.)

- ☐ Topographic sound barriers
- ☐ H2S contingency and/or evacuation plan
- ☐ Special equipment/procedures requirements
- ☐ Other:

## 7. WILDLIFE/RECREATION

Sage Grouse: NA

Proximity to sensitive wildlife areas (DFWP identified): None identified.

Proximity to recreation sites: None identified.

Creation of new access to wildlife habitat: No.

Conflict with game range/refuge management: No.

Threatened or endangered Species: Species in the area identified as threatened or endangered by the USFWS are the Pallid Sturgeon, Whooping Crane, and Piping Plover. The Montana Natural Heritage

Program lists twenty-eight (28) species of concern in T27N, R59E. The list includes, 5 mammals, 11 birds, 1 reptile, 9 fish, 1 vascular plant, and 1 "other." Please see attached report for specific species.

Mitigation:

- ☐ Avoidance (topographic tolerance/exception)
- ☒ Other agency review (DFWP, federal agencies, **DNRC Trust Lands**)
- ☐ Screening/fencing of pits, drillsite
- ☐ Other:

Comments: State grazing surface lands. There may be species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what they would like done if a species of concern is discovered at this location.

#### IV. IMPACTS ON THE HUMAN POPULATION

##### 8. HISTORICAL/CULTURAL/PALEONTOLOGICAL

Proximity to known sites: None identified.

Mitigation

- ☐ avoidance (topographic tolerance, location exception)
- ☐ other agency review (SHPO, DNRC Trust Lands, federal agencies)

Other:

##### 9. SOCIAL/ECONOMIC

Substantial effect on tax base

- ☐ Create demand for new governmental services
- ☐ Population increase or relocation

Comments: No concerns.

#### IV. SUMMARY

No long term impacts expected. Some short term impacts will occur, but can be mitigated.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

**EA Checklist**  
**Prepared By:**

**Name:** John Gizicki  
**Title:** Chief Field Inspector

**Date:** 01/30/23